Alcohol Use and misuse during the COVID-19 pandemic

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GPs can play a pivotal role in the identification and management of alcohol problems at any time, and their role is even more important during the COVID-19 pandemic as more and more patients are resorting to alcohol to manage the stress and anxiety created by the pandemic.

A lcohol is the most widely used drug in Australia, with almost 85% of the population reporting at least occasional use and 20% exceeding recommended safe drinking levels.¹ Of the risk factors contributing to the burden of disease in Australia, alcohol ranks sixth, with over 200 medical conditions attributed to alcohol use, including chronic liver disease (which covers liver cancer), injuries sustained through motor vehicle accidents, suicide and self-inflicted harm.¹ In recent years, population-wide

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Impact of COVID-19 on alcohol use

The impact of COVID-19 on the drinking patterns of people in Australia has resulted in either a marked reduction in alcohol use or, conversely, a marked increase in alcohol use. As a result of the pandemic, the Australian government introduced social distancing measures and ordered nonessential services including licensed venues such as pubs and clubs to temporarily close, which resulted in changes to the sale and consumption of alcohol.⁴

For some people, lockdown offered an opportunity to change previously problematic drinking behaviour by facilitating abstinence.⁵ Changes in financial security



because of the pandemic may also have indirectly contributed to forced abstinence from alcohol, and may account for the increased rates of complicated alcohol withdrawal reported during the COVID-19 pandemic.^{6,7}

Although some Australians reduced their drinking during COVID-19, others increased their alcohol intake. Alcohol sales and home delivery increased significantly during the pandemic. Spending more time at home and the increased stress associated with the pandemic has led many Australians to increase their alcohol intake, with women aged 35 to 44 years reporting



and stress was reported by one in three people in Australia during lockdown.⁹ Stressful life experiences such as pandemics and other natural disasters are associated with increased risk of alcohol use and alcohol-related problems.^{10,11} However, the COVID-19 pandemic is unique in that it has lasted for much longer than typical natural disasters such as floods or bushfires. Most workers in Australia worked from home during lockdown and many children were also spending more time at home, causing a disruption to many

the greatest increase in alcohol consump-

tion.8 Using alcohol to cope with anxiety

KEY POINTS

- For some people, alcohol consumption has increased during the COVID-19 pandemic.
- This is likely associated with the elevated stress, anxiety and depression experienced by many, as well as increased time spent at home during periods of lockdown.
- GPs should screen every patient for alcohol misuse, even if they do not suspect it. The Alcohol Use Disorders Identification Test for Consumption (AUDIT-C) and the *Diagnostic and Statistical Manual of Mental Disorders*, 5th Edition checklist for alcohol use disorder (AUD) are ideal assessment tools.
- Mental health problems commonly co-occur with AUD; therefore, GPs should also be prepared to investigate these during consultation.
- Laboratory investigations and physical examination may also indicate AUD; however, they should not be used in isolation.
- Management options include pharmacological treatment, withdrawal management and supportive counselling.

households' usual routines. Connecting with family and friends has become difficult, if not impossible, for many since the pandemic. Rates of domestic violence during the COVID-19 pandemic increased dramatically.¹² During lockdown, rates of solitary drinking at home increased, with people reporting a tendency to not monitor their alcohol intake given the usual restraints such as driving home from licensed venues was no longer a concern. Traditionally,

1. THE GP'S ROLE IN MANAGING ALCOHOL USE

- Screening and identifying alcohol use disorder
- Thorough assessment of alcohol use, including assessing patient's readiness to change
- Assessment of the impact of alcohol use on the patient's mental health
- Laboratory investigations and physical examination
- Treatment options pharmacotherapy, counselling, selfhelp groups

solitary drinking has been associated with more alcohol-related harm.¹³ One NSW study found that people who increased their alcohol intake during lockdown continued to drink excessively even once lockdown restrictions were eased.¹⁴

The GP consultation

Around one in four Australians delayed seeing a GP during the height of the COVID-19 pandemic.15 GPs in Australia reported fewer face-to-face consultations since the pandemic, with most consultations conducted via telehealth.¹⁶ Telehealth consultations have a number of benefits, particularly for patients in rural or remote areas, such as increasing access to care. Telehealth consultations also limit unnecessary travel and reduce community transmission of COVID-19 and other diseases. However, there are numerous barriers to consultation including privacy concerns, access issues for patients without internet or technology and the fact that some procedures such as pathology or physical examinations necessitate a face-to-face consultation.

Despite this, GPs are well placed to assess and screen for alcohol problems given that 83% of the population visited a GP in 2019-2020.¹⁵ GPs play a pivotal role in identifying alcohol problems as well as providing advice to patients on how to reduce or abstain from alcohol and monitor their alcohol use (Box 1).

TABLE. AUDIT-C QUESTIONNAIRE17

Questions	Score*	
How often do you have a drink containing alcohol?		
Never	+0	
Monthly or less	+1	
2 to 4 times a month	+2	
2 to 3 times a week	+3	
4 or more times a week	+4	

How many standard drinks containing alcohol do you have on a typical day?

1 or 2	+0
3 or 4	+1
5 or 6	+2
7 to 9	+3
10 or more	+4

How often do you have six or more drinks on one occasion?

Never	+0
Less than monthly	+1
Monthly	+2
Weekly	+3
Daily or almost daily	+4

Abbreviation: AUDIT-C = Alcohol Use Disorders Identification Test for Consumption.

* Total AUDIT-C scores above 4 in men and 3 in women warrant a further comprehensive assessment of alcohol use using the *Diagnostic* and *Statistical Manual of Mental Disorders*, 5th Edition criteria for alcohol use disorder.

Screening and identifying alcohol use disorder

Patients rarely present to a GP specifically to request assistance with their alcohol use. As recommended by the RACGP's Red Book, GPs should screen every patient for alcohol misuse, even if they do not suspect alcohol misuse. The Alcohol Use Disorders Identification Test for Consumption (AUDIT-C) is a brief three-item scale that can be integrated into routine history taking during a standard consultation (Table) along with information on what constitutes a standard drink.¹⁷ This rapid screener has been developed by the World Health Organization and has been extensively validated in Australian populations. The AUDIT-C can be administered in a nonjudgemental way to enable open discussion of the patient's alcohol use, especially with patients who may be reluctant to freely discuss their drinking. Total AUDIT-C scores above 4 in men and 3 in women warrant a further comprehensive assessment of alcohol use using the *DSM-5* (*Diagnostic and Statistical Manual of Mental Disorders*, 5th Edition) criteria for alcohol use disorder (AUD).¹⁸

Comprehensive assessment of alcohol use

GPs should ask the patient each of the 11 items in the DSM-5 checklist (Box 2) in order to provide a more in-depth assessment of the patient's alcohol use. The presence of two or more items from the DSM-5 checklist suggests AUD; however, the results from this checklist should not be used alone to make a formal diagnosis of AUD. In addition to the DSM-5 checklist, GPs should gather information on the patient's typical daily use of alcohol, including quantity and frequency of alcohol use as well as identifying any triggers to drink (e.g. low mood, boredom). The Australian Guidelines for Treatment of Alcohol Problems provides further information on assessment and treatment options.19

Readiness to change alcohol use

The results of the *DSM-5* checklist should be fed back to the patient in a neutral, nonjudgemental manner, keeping in mind that ambivalence on the patient's part is normal. Principles of motivational interviewing should be used when discussing the patient's alcohol use. Regardless of the patient's results on the *DSM-5* checklist, the GP should keep in mind that not all patients will consider their drinking to be problematic, nor will they necessarily be ready to change their drinking habits right now. One quick way to determine how ready patients are to change their

2. DSM-5 CHECKLIST FOR ASSESSING ALCOHOL USE*

In the past year, have you:

- Had times when you ended up drinking more, or longer, than you intended?
- More than once wanted to cut down or stop drinking, or tried to, but couldn't?
- Spent a lot of time drinking? Or being sick or getting over other after-effects?
- Wanted a drink so badly you couldn't think of anything else?
- Found that drinking or being sick from drinking – often interfered with taking care of your home or family? Or caused job troubles? Or school problems?
- Continued to drink even though it was causing trouble with your family or friends?
- Given up or cut back on activities that were important or interesting to you, or gave you pleasure, in order to drink?
- More than once gotten into situations while or after drinking that increased your chances of getting hurt (such as driving, swimming, using machinery, walking in a dangerous area or having unsafe sex)?
- Continued to drink even though it was making you feel depressed or anxious, or adding to another health problem? Or after having had a memory blackout?
- Had to drink much more than you once did to get the effect you want? Or found that your usual number of drinks had much less effect than before?
- Found that when the effects of alcohol were wearing off, you had withdrawal symptoms, such as trouble sleeping, shakiness, restlessness, nausea, sweating, a racing heart or a seizure? Or sensed things that were not there?

The severity of the alcohol use disorder is defined as: Mild: The presence of two to three symptoms Moderate: The presence of four to five symptoms Severe: The presence of six or more symptoms * The checklist should not be used alone to make a formal diagnosis of alcohol use disorder. drinking is to ask:

'How ready are you to change your drinking right now out of 10, where 10 is ready to change now and 0 is not at all ready to change my drinking?'

If patients are clearly resistant to the idea of changing their alcohol use, respectfully acknowledge their decision and offer to be of assistance in future if they later choose to change their drinking.

If patients are ambivalent about changing their drinking, further assess the pros and cons of drinking versus changing their drinking habits, increase their belief in their ability to change and offer information about the effects of alcohol on their health if they agree to this.

If patients are ready to change their drinking right now, offer advice and suggestions on how to achieve this and set concrete measurable drinking goals. There are a number of telephone and online support services for patients who wish to change their alcohol use, and for carers and treatment providers including GPs. Some of these resources are listed in Box 3.

Other key questions to ask patients regarding their alcohol consumption during the COVID-19 pandemic are provided in Box 4.

Comorbid mental health problems

Alcohol use and mental health problems often occur together, with depression and anxiety the most commonly co-occurring conditions.²⁰ Globally, mental health has worsened during the COVID-19 pandemic. Increased rates of stress, anxiety, depression, post-traumatic stress disorder and insomnia have been reported, even among people without a pre-existing mental health problems.²¹⁻²³ Rates of suicide have not increased since the pandemic in Australia as originally expected; however, rates of help-seeking for suicidal ideation increased dramatically during 2020.²⁴

Given the negative impact of the COVID-19 pandemic on the mental health of people in Australia and the co-occurrence of mental health and alcohol problems, it is vital that GPs are prepared to assess and manage mental health problems in addition to alcohol use.

GPs can confidently ask about symptoms using mental health screeners, such as the Kessler Psychological Distress Scale (K10) and the Depression, Anxiety and Stress Scale 21 (DASS21), which can be used routinely to assess patients who overuse alcohol.^{25,26} The relationship between a patient's level of social isolation and anxiety, depression and alcohol use may be assessed during consultations. GPs should also routinely assess suicide risk and implement suicide prevention plans for patients presenting with suicidal ideation.

Laboratory investigations

Elevated levels of the following biomarkers are only seen in a minority of patients with excessive alcohol use:

- serum gamma glutamyl transferase (GGT) level
- mean corpuscular volume (MCV)
- aspartate aminotransferase (AST) level.

Normal results do not exclude significant AUD. It is important for the patient to understand this may be a false reassurance as these tests do not identify alcoholrelated damage to social function, mood, brain function or cardiovascular health.

Even when elevated, biomarkers may reflect nonalcohol-related pathology, but if AUD is confirmed, they do suggest liver disease or other physical toxicity. Results from the above tests can be used to motivate patients with AUD who may be ambivalent about moderating their

3. SUPPORTS AND RESOURCES TO HELP PATIENTS REDUCE AND MANAGE ALCOHOL CONSUMPTION

Online information and support

- ADIS Alcohol and Drug Information Service: 24-hour telephone counselling, referral and information service on effects of alcohol
 NSW: 1800 250 015
 SA: 1300 131 340
 Vic: 1800 888 236
 Qld: 1800 177 833
 WA: 1800 198 024
 Tas: 1800 811 994
 NT: 1800 131 350
 ACT: (02) 6207 9977
- Alcohol. Think Again: online education on alcohol-related harm http://alcoholthinkagain.com.au
- Alcohol and Drug Foundation: provides evidence-based approaches to minimise alcohol and drug harm http://adf.org.au
 Ph: 1300 858 584
- Drinkwise: online resources for patients, including those under 18, and carers https://drinkwise.org.au

Online apps to help change drinking habits (available on Android and Apple)

- Daybreak Alcohol Support
- Drinks Meter (https://www.drinksmeter.com)
- Sober Tool (https://www.sobertool.com)

Support for those recovering from alcohol

- SMART Recovery Groups Australia https://smartrecoveryaustralia.com.au
 Ph: (02) 9373 5100
- Alcoholics Anonymous Groups
 https://aa.org.au
 Ph: 1300 222 222

Support for carers

 Family Drug Support: 24-hour counselling, groups, education for partners/family/carers http://fds.org.au
 Ph: 1300 368 186

Support for health professionals

- Guidelines for the Treatment of Alcohol Problems. Canberra: Australian Government Department of Health and Ageing; 2009. https://www.health.gov.au/sites/default/files/guidelines-for-the-treatment-ofalcohol-problems_0.pdf
- RACGP Alcohol & Other Drugs GP Education Program https://www.racgp.org.au/education/professional-development/courses/alcoholand-other-drugs
- NSW Drug & Alcohol Specialist Advisory Service (DASAS): 24-hour free telephone advice from medical consultants on the management of alcohol problems Ph: 02 83821006 Ph: 1800 023 687
- Drug & Alcohol Clinical Advisory Service (DACAS): 24-hour free telephone advice on the management of alcohol problems
 VIC: 1800 812 804
 TAS: 1800 630 093
 NT: 1800 111 092

4. KEY QUESTIONS TO ASK PATIENTS TO HELP ASSESS READINESS TO CHANGE ALCOHOL USE

- How has your drinking changed as a result of COVID-19? Are you drinking less or more than usual since COVID-19?
- What things do you like about alcohol? What are some less good things about alcohol?
- How ready are you to change your alcohol use right now out of 10 (where 0= not at all ready and 10=very ready to change now)?
- Have you ever tried to change your drinking before? If yes, what helped/ what didn't help?
- Do you ever feel depressed or anxious?

alcohol intake, and appropriate biochemical testing should be considered before embarking on a goal of reduced drinking, to exclude significant health problems. If test results are abnormal, additional investigation may be warranted. Progress testing is very helpful in identifying response to intervention.

Specialised tests include the biomarkers carbohydrate deficient transferrin (CDT) and urinary ethylglucuronide (EtG). Both are readily available from major pathology providers but are costly because they are not covered by Medicare. They would normally be ordered according to directions from authorities such as the family court and professional regulators such as AHPRA.

Abnormal results for biomarkers can be used to raise concerns about alcohol use, especially when GPs suspect the patient may be under-reporting excessive alcohol use during consultations or on self-report measures (such as the AUDIT-C and *DSM-5* checklist).

Physical examination

Signs of excessive alcohol consumption may be evident on physical examination. Common indicators of excessive drinking include, but are not limited to:

- signs of intoxication or withdrawal, which may be subtle
- hypertension

- conjunctival injection
- hepatomegaly and other signs of liver disease.

The presence of any of the above physical signs is not diagnostic of or essential to diagnosing AUD. Most patients with AUD have no abnormal physical findings. Only those with more severe AUD show signs of cognitive impairment and poor general presentation. Abnormal findings can be fed back to patients whom GPs suspect may be under-reporting their alcohol intake in order to encourage more open discussion about their drinking.

Management options Pharmacotherapy for relapse prevention

GPs are well placed and trained to offer brief interventions for patients with mild to moderate AUD. For patients with moderate to severe AUD, numerous pharmacotherapy options are available for both abstinence and reduced drinking goals including acamprosate, naltrexone and disulfiram.

Withdrawal management

Patients who meet the criteria for severe AUD should not be advised to stop drinking abruptly given they likely to be physically dependent on alcohol and are at risk of experiencing potentially life-threatening withdrawal. Such patients would benefit from medicated detoxification that can be offered in primary care or via external referral to the appropriate specialist service. Outpatient withdrawal management uses long-acting benzodiazepines such as diazepam in a tapering dose with daily thiamine for five to seven days. Outpatient detoxification is not indicated in those without social support, or who have significant medical and mental comorbidities, seizure disorders, or a history of complicated withdrawal or failed withdrawal attempts.

Supportive counselling

Evidence suggests that patients are more likely to achieve their drinking goals if they combine pharmacotherapy with supportive counselling.²⁷ Counselling teaches patients coping skills to manage high-risk situations in which they would typically drink, such as when depressed or bored. Due to the pandemic, counselling services are now typically delivered online via telehealth. Most support groups such as SMART Recovery and Alcoholics Anonymous groups are also being offered online during the COVID-19 pandemic.

Numerous mobile apps also exist to help patients manage their alcohol use and are listed in Box 3.

Conclusion

Alcohol use remains a significant cost and burden to patients and society. Given increased rates of alcohol use since the COVID-19 pandemic in Australia, it is vital that GPs take the time to routinely screen patients for possible alcohol misuse. GPs have the necessary skills to routinely screen, conduct a comprehensive assessment and devise a treatment plan for patients drinking excessively since the pandemic. MI

References

A list of references is included in the online version of this article (www.medicinetoday.com.au).

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ONLINE CPD JOURNAL PROGRAM

During the COVID-19 pandemic, alcohol consumption increased the most in women aged 35 to 44 years. True or false?



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References

1. Australian Institute of Health and Welfare (AIHW). Alcohol, tobacco & other drugs in Australia. Canberra: AIHW, 2020. Available online at: https://www. aihw.gov.au/reports/alcohol/alcohol-tobacco-other-drugs-australia (accessed March 2021).

2. Teesson M, Ross J, Darke S, et al. One year outcomes for heroin dependence: findings from the Australian Treatment Outcome Study (ATOS). Drug Alcohol Depend 2006; 83: 174-180.

3. The Royal Australian College of General Practitioners (RACGP). Guides for the preventative activities in general practice. 9th edition. Melbourne: RACGP; 2016. Available online at: https://www.racgp.org.au/download/Documents/

Guidelines/Redbook9/17048-Red-Book-9th-Edition.pdf (accessed March 2021) 4. Dietze PM, Peacock A. Illicit drug use and harms in Australia in the context of COVID-19 and associated restrictions: anticipated consequences and initial responses. Drug Alcohol Rev 2020; 39: 297-300.

5. Jackson SE, Garnett C, Shahab L, Oldham M, Brown J. Association of the Covid-19 lockdown with smoking, drinking, and attempts to quit in England: an analysis of 2019-2020 data. Addiction 2020 Oct 21. doi: 10.1111/ add.15295. [Online ahead of print].

6. Rehm J, Kilian C, Ferreira Borges C, et al. Alcohol use in times of the COVID
19: implications for monitoring and policy. Drug Alcohol Rev 2020; 39: 301-304.
7. Narasimha VL, Shukla L, Mukherjee D, et al. Complicated alcohol

withdrawal-an unintended consequence of COVID-19 lockdown. Alcohol and alcoholism (Oxford, Oxfordshire) 2020; 55: 350-353.

8. Biddle N, Edwards B, Gray M, Sollis K. Alcohol consumption during the COVID-19 period: May 2020. Canberra: The Australian National University: Centre for Social Research and Methods; 2020.

9. Foundation for alcohol research and education (FARE). Alcohol use and harm during COVID-19: data report. July 2020. Available online at: https://fare. org.au/wp-content/uploads/Alcohol-use-and-harm-during-COVID-19.pdf (accessed March 2021).

10. Beaudoin CE. Hurricane Katrina: addictive behavior trends and predictors. Public Health Reports 2011; 126: 400-409.

11. Keyes KM, Hatzenbuehler ML, Hasin DS. Stressful life experiences, alcohol consumption, and alcohol use disorders: the epidemiologic evidence for four main types of stressors. Psychopharmacol 2011; 218: 1-17.

12. Campbell A. An increasing risk of family violence during the covid-19 pandemic: strengthening community collaborations to save lives. Forensic Science International Reports 2020; Dec 2: 100089.

13. Skrzynski CJ, Creswell KG. Associations between solitary drinking and increased alcohol consumption, alcohol problems, and drinking to cope motives in adolescents and young adults: a systematic review and metaanalysis. Addiction 2020; 115: 1989-2007.

14. Ritter A, Wilkinson C, Vuong T, et al. Distilling our changing relationship with alcohol during COVID-19 DPMP Monograph No. 29. Sydney: UNSW Social Policy Research Centre; 2020.

15. Australian Bureau of Statistics (ABS). Patient experiences in Australia:

summary of finding. 2019-2020. Available online at: https://www.abs.gov.au/ statistics/health/health-services/patient-experiences-australia-summaryfindings/latest-release (accessed March 2021).

16. The Royal Australian College of General Practitioners (RACGP). Health of the Nation Report 2020. Available online at: https://www.racgp.org.au/health-of-the-nation/health-of-the-nation (accessed March 2021).

17. Bush K, Kivlahan DR, McDonell MB, Fihn SD, Bradley KA. The AUDIT alcohol consumption questions (AUDIT-C): an effective brief screening test for problem drinking. Ambulatory Care Quality Improvement Project (ACQUIP). Alcohol Use Disorders Identification Test. Arch Intern Med 1998; 158: 1789-1795.

18. American Psychiatric Association. Diagnostic and statistical manual of mental disorders, fifth edition (DSM-5). Arlington, VA; American Psychiatric Association: 2013.

19. Haber P, Lintzeris N, Proude E, Lopatko O. Guidelines for the treatment of alcohol problems. Canberra: Australian Government Department of Health and Ageing; 2009. Available online at: https://www.health.gov.au/sites/default/files/guidelines-for-the-treatment-of-alcohol-problems_0.pdf (accessed March 2021).

20. Grant BF, Stinson FS, Dawson DA, et al. Prevalence and co-occurrence of substance use disorders and independent mood and anxiety disorders: results from the National Epidemiologic Survey on Alcohol and Related Conditions. Arch Gen Psychiatry 2004; 61: 807-816.

 Carvalho P, Moreira MM, de Oliveira M, Landim J, Neto M. The psychiatric impact of the novel coronavirus outbreak. Psychiatry Res 2020; 286: 112902.
 Torales J, O'Higgins M, Castaldelli-Maia JM, Ventriglio A. The outbreak of COVID-19 coronavirus and its impact on global mental health. Int J Soc Psychiatry 2020; 66: 317-320.

23. Rossi R, Socci V, Talevi D, et al. COVID-19 and lockdown measures impact on mental health among the general population in Italy. Front Psychiatry 2020; 11: 790.

24. ABC News. Neal M. Good Friday was Lifeline's busiest day ever as coronavirus puts strain on mental health. April 2020. Available online at: https://www.abc.net.au/news/2020-04-19/good-friday-was-lifeline-busiest-day-ever-coronavirus-anxiety/12161104?utm_source=abc_news_web&utm_medium=content_shared&utm_content=link&utm_campaign=abc_news_web (accessed March 2021).

25. Kessler RC, Andrews G, Colpe LJ, et al. Short screening scales to monitor population prevalences and trends in non-specific psychological distress. Psychol Med 2002; 32: 959-976.

26. Lovibond SH, Lovibond PF. Manual for the Depression Anxiety Stress Scales. 2nd Ed. Sydney: Psychology Foundation; 1995.

27. Whitlock, EP, Polen, MR, Green, CA, et al. Behavioral counseling interventions in primary care to reduce risky/harmful alcohol use by adults: a summary of the evidence for the U.S. Preventive Services Task Force. Ann Intern Med 2004; 140: 557-568.